

CLAIMS

1. A measuring device (1), preferably a test stand for engines and vehicles for analyzing exhaust gases of a combustion engine (2), comprising at least one exhaust gas supply line (3, 4) which can be connected to the exhaust system of the combustion engine (2) and which supplies at least one measuring branch (7, 8, 9) each provided with at least one analysis unit (12, 13, 14) for determining exhaust gas constituents, characterized in that a filter device (16a to 16f) is provided in at least one cool measuring branch (9) upstream of the analysis unit (14) and/or between different components (14a, 14b) of the analysis unit (14) and/or on the output side of at least one analysis unit (12, 13, 14) of one of the measuring branches (7, 8, 9), which filter unit comprises a filter material that is selective with regard to gaseous hydrocarbons.
2. A measuring device (1) according to claim 1, characterized in that the filter device (16a to 16f) contains a filter material selected from the group consisting of zeolites and/or silicates.
3. A measuring device (1) according to claim 1 or 2, characterized in that the filter device (16a) is arranged upstream of an exhaust gas cooling device (15) upstream of an analysis unit (14), so that the transport of condensate originating in the filter device (16a) preferably occurs by the gas flow in the direction of the exhaust gas cooling device (15).
4. A measuring device (1) according to one of the claims 1 to 3, characterized in that the filter device (16a) is arranged above an exhaust gas cooling device (15) provided upstream of the analysis unit (14), so that the transport of condensate originating in the filter device (16a) preferably occurs by gravity in the direction of the exhaust gas cooling device (15).
5. A measuring device (1) according to claim 1 or 2, characterized in that the filter device (16b) is an integral component of the analysis unit (14).
6. A measuring device (1) according to one of the claims 1 to 5, characterized in that the filter device (16c, 16d, 16e) is arranged on the

output side of at least one of the measuring branches (7, 8, 9) of the measuring device (1).

7. A measuring device (1) according to one of the claims 1 to 6, characterized in that the adsorption material is present as a granulate with a grain size of up to 30 mm, preferably 4 mm to 10 mm.
8. A measuring device (1) according to one of the claims 1 to 7, characterized in that the filter device (16a to 16f) consists of a disposable cartridge, a cartridge with a refill set or a refillable cartridge (22).
9. A measuring device (1) according to claim 8, characterized in that the cartridge (22) comprises a dust filter (24) at least on the output side.
10. A measuring device (1) according to one of the claims 1 to 9, characterized in that the analysis unit (14) of the cool measuring branch (9) comprises sensor devices for determining the CO, CO₂ and/or O₂ content of the exhaust gas.